

REMARKS/ARGUMENTS

This paper is submitted in response to the Office Action mailed August 23, 2005.

Reconsideration is respectfully requested.

A certified copy of the priority document is submitted herewith, perfecting applicant's claim to priority from European Application 03388011.3, filed 12 February 2003.

Claims 1-10 were examined, claims 11-25 having been withdrawn pursuant to a Restriction/Election Requirement. Claims 11-25 have now been cancelled without prejudice to the resubmission of the subject matter of these claims in a divisional application.

Claims 1-7, 9, and 10 stand rejected under 35 U.S.C. §103(a) as unpatentable over US 6,099,400 – Ragnarsson et al. in view of US 5,112,269 – Petersen, deceased et al. (“Petersen et al.”) and in further view of US 4,517,707 – Braginsky et al. Claim 8 was rejected on the same grounds as unpatentable over Ragnarsson et al. in view of Petersen et al. and Braginsky et al., and in further view of US 3,818,818 – Hice. For the reasons discussed in detail below, these rejections are respectfully traversed.

The present invention, as defined, for example, in claim 1, is a method of processing shrimp, comprising the steps of (a) steam boiling the shrimp at a pressure exceeding atmospheric pressure and at a temperature exceeding the boiling point at atmospheric pressure (i.e., “pressure-cooking” the shrimp with super-heated steam); (b) rapidly cooling the shrimp; (c) peeling the cooled shrimp; (d) separating the shrimp meat from the “remains” (shell parts and eggs that remain attached to the meat after peeling) in a flotation separation step in which the shrimp meat and the attached remains are introduced into a separation liquid, defined as a brine solution, which causes the meat to float and the remains to sink; and (e) removing the meat from the separation liquid. The “flotation separation,” by which the meat is caused to float and the remains are caused to sink is, as mentioned in the specification, a surprising result that is achieved by the claimed invention.

Ragnarsson et al. disclose a shrimp processing method, comprising the steps of (a) cooking the shrimp; (b) cooling the cooked shrimp; and (c) peeling the cooled shrimp. There is no mention or suggestion of any flotation separation step comparable to the flotation separation step in the claimed invention. While the reference teaches the use of a brine solution, it is only used to cool the cooked shrimp, and is not, in any way, employed to separate the meat from “remains” by flotation separation. Indeed, there is no suggestion that the brine bath of the

reference can or should perform any separation function. Furthermore, this reference, while suggesting that the shrimp are boiled, does not teach or suggest the step of pressure cooking with super-heated steam that is defined in claim 1. Specifically, only reference to a cooking temperature is found at column 1, lines 45-47, where it is stated that the shrimp “leaving the cooking unit 1 are generally in a temperature range of 70-80° C.” This temperature range strongly suggests a cooking temperature of about 100° C, rather than the minimum cooking temperature of 150° C taught in the subject application.

Petersen et al. was cited for its disclosure of boiling shrimp at greater than atmospheric pressure, but the cooking temperature still does not exceed 150° C. See Column 2, lines 4-10.

Furthermore, the purpose of the Petersen et al. process is to de-shell the shrimp simply by means of pressure-cooking them and then discharging them against a solid surface (see, e.g., claim 1, column 4, lines 15-28). The goal is to separate the meat and the shells “without using a transport liquid” (column 1, line 68-column 2, line 3). Thus, there would be no incentive to combine this reference with any of the other references of record to teach applicant’s claimed invention, because this reference would not be looked to by those skilled in the art if the goal were to use a separation liquid, as recited in claim 1.

Braginsky et al. was cited for its disclosure of a flotation separation step. The flotation separation process described in Braginsky et al., however, differs in significant and patentably distinct ways from Applicant’s claimed invention.

Specifically, there is no teaching or suggestion in Braginsky et al. that the disclosed separation process is to be used after the shrimp have been boiled, cooled, and mechanically peeled. The purpose of the Braginsky et al. process appears to be to separate the meat from the shells by first subjecting the shrimp to fluid pressures in the “breaking-up chamber 5” to crack the shells and to initiate the separation of the shells from the meat. See column 5, lines 33-43.

Then, without any prior peeling step, the separation process is preformed with a “working fluid,” which can be either fresh or salt water (column 4, lines 64-65), or even a gas (compressed air or steam; see column 3, lines 64-65). Thus, unlike the Applicant’s claimed process, the nature of the working fluid is not critical, because the flotation separation is preformed by generating an “ascending flow” of the working fluid that causes *the shells to rise while allowing the meat to sink*. See column 5, lines 9-31; and column 5, line 47 to column 6, line 18. In contrast, the flotation separation step in Applicant’s claimed invention, as defined in claim 1, does not require

any “ascending flow” of the separation liquid, but it does require that the liquid be a brine solution, which performs the separation without the need for any particular flow. Moreover, in contrast to the teachings of Braginsky et al., the flotation separation step defined in claim 1 causes the meat to float, while the shell parts and eggs sink. (It should be noted that the

5 Braginsky et al. patent, like the other references of record, does not address the separation of eggs from the meat.)

Thus, there would be no reason to look to Braginsky et al. for any teaching of a flotation separation process that uses a brine solution bath to cause the meat to float and the “remains” (including eggs) to sink, because this reference teaches the opposite result.

10 Therefore, it is respectfully submitted that those skilled in the art would not combine the teachings of the cited references as suggested by the examiner. Furthermore, even if the references could be combined as suggested by the Examiner, the result still not be a process as defined in claim 1. Specifically, the combination of Ragnarsson et al., Petersen et al. and Braginsky et al. would, at best, yield a process of pressure-cooking shrimp at a temperature not

15 exceeding 150° C, cooling the shrimp, peeling the shrimp, and then subjecting them to a separation process in which an ascending flow of an arbitrary working fluid causes the shells to rise while allowing the meat to sink. This is not the invention defined in claim 1, which, as mentioned above, uses a brine bath to cause the meat to float and the shells and eggs to sink, a result neither taught nor suggested by the art of record.

20 Accordingly, it is respectfully submitted that claim 1 defines patentably over the art of record and should be allowed. Claims 2-10 depend from claim 1 and further define other novel aspects of the invention that are neither taught nor suggested in the claimed combination of steps by the art of record. Thus, for example, claim 3 teaches a novel and non-obvious cooking temperature range; claim 4 teaches a novel and non-obvious cooking time period; claims 6 and 7

25 define the cooking step as being a continuous operation and a batch operation, respectively; and claim 10 defines the novel and non-obvious flotation separation step with greater particularity. The remaining dependent claims (2, 5, 8, and 9) define with greater particularity specific aspects of the novel and non-obvious method defined in claim 1. Therefore, dependent claims 2-10 also define patentably over the art of record and should be allowed along with claim 1.

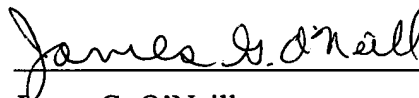
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In summary, it is respectfully submitted that claims 1-10 define patentably over the art of record and should be allowed. Passage of the application to issue is therefore earnestly solicited.

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Respectfully submitted,

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